AMENDMENTS TO THE CLAIMS

The claims in this listing replaces all prior versions and listings of claims in the application.

<u>Listing of Claims</u>:

1. (Currently Amended)   A surveying system, comprising:

a position relation calculating processor that calculates a positional relation between a coordinate system to which measurement information of a measurement point refers and a schematic image of a surveying field, in which said schematic image includes a staking point;

a correspondence establishing processor that establishes <u>a</u> correspondence between three-dimensional position information of said staking point and two-dimensional position information of a point corresponding to said staking point on said schematic image; and

an image processor that superimposes a symbol for indicating the position of said staking point on said schematic image in accordance with said correspondence<u>,</u>

<u>wherein said correspondence establishing processor further establishes a correspondence between said measurement information of said measurement point and said two-dimensional position information of said point corresponding to said measurement point on said schematic image, and said image processor is able to indicate the position of said measurement point on said schematic image</u>.

2.   (Original)   A system according to claim 1, further comprising a surveying device that is able to obtain said measurement information for said measurement point.

3. (Original) A system according to claim 2, wherein said positional relation is calculated from a relation between three-dimensional measurement information of control points which is obtained by said surveying device, and two-dimensional position information of a point corresponding to said control points on said schematic image, and wherein said control points are designated on said schematic image.

4. (Original) A system according to claim 2, wherein said surveying device comprises an image capturing device that is able to capture a magnified image which has a higher magnification relative to said schematic image, and wherein said magnified image of a sighting direction of said surveying device can be superimposed on said schematic image.

5. (Canceled)

6. (Currently Amended) A system according to claim [[5]] 1, wherein said measurement information of said measurement point comprises known measurement information.

7. (Original) A system according to claim 6, wherein said known measurement information comprises given geographical data, and said image processor superimposes a symbol for indicating the position corresponding to said given geographical data on said schematic image.

8. (Original) A system according to claim 1, wherein representation of said staking point before completion of a staking operation and after completion of said staking operation is different.

9. (Original) A system according to claim 1, wherein said image processor generates a plan view that indicates at least one of the relations between the position where said schematic image is captured, the position of said staking point, the position of said measurement point, and the position of said surveying device.

10. (Original) A system according to claim 1, wherein said image processor further superimposes secondary surveying information on said schematic image, and said secondary surveying information is derived on the basis of relations between said staking point and said measurement point.

11. (Original) A system according to claim 1, wherein said image processor further superimposes secondary surveying information on said schematic image, and said secondary surveying information is derived on the basis of relations between a plurality of said measurement points.

12. (Original) A system according to claim 10, further comprising

an image indicating device that indicates said schematic image on a screen; and

an input device that enables a designation of a point on said screen of said image indicating device;

wherein the positions of said staking points and said measurement points relating to said secondary surveying information are determined by designating at least two points from said staking points and said measurement points on said schematic image by using said input device.

13 (Original) A system according to claim 11, further comprising

an image indicating device that indicates said schematic image on a screen; and

an input device that enables a designation of a point on said screen of said image indicating device;

wherein the positions of said measurement points relating to said secondary surveying information are determined by designating at least two points from said plurality of measurement points on said schematic image by using said input device.

14. (Original) A system according to claim 1, further comprising an image indicating device, and said schematic image, on which a position of said staking point is indicated, can be displayed on a screen of said image indicating device.

15. (Original) A system according to claim 1, further comprising a printer, and said schematic image, on which a position of said staking point is indicated, can be printed.

16. (Original) A system according to claim 1, wherein said image processor superimposes a symbol for indicating a position of a target on said schematic image, and wherein said target is measured so as to carry out staking out surveying for said staking point.

17. (Original) A system according to claim 16, wherein said image processor superimposes a distance between said target and said staking point on said schematic image.

18. (Original) A system according to claim 16, wherein said image processor superimposes a direction in which said target should be moved for said staking out surveying, on said schematic image.

19. (Original) A system according to claim 1, wherein said image processor superimposes measurement information of said measurement point on said schematic image.

20. (Original) A system according to claim 1, further comprising an inner orientation parameter calculating processor that calculates inner orientation parameters of a camera which captured said schematic image, in accordance with a relation between measurement information of a plurality of control points and two-dimensional position information of said control points on said schematic image.

21. (Original) A system according to claim 20, further comprising,

an image indicating device that indicates said schematic image on a screen; and

an input device that enables a designation of a point on said screen of said image indicating device;

wherein a position of said control point is arbitrarily designated on said schematic image displayed on said screen by using said input device.

22. (Original) A system according to claim 1, wherein said positional relation is calculated from a relation between given three-dimensional measurement information of a plurality of control points and two-dimensional position information of said control points on said schematic image.

23. (Original) A system according to claim 1, wherein said image processor superimposes said three-dimensional position information of said staking point on said schematic image.

24. (Original) A system according to claim 1, further comprising a data recording processor that is able to associate and record said three-dimensional position information of said staking point, said measurement information of said measurement point, and image data of said schematic image.

25. (Original) A system according to claim 1, further comprising a personal digital assistant, wherein said personal digital assistant comprises said image processor.

26. (Currently Amended) A personal digital assistant which is used in a surveying system that comprises a position relation calculating processor that calculates a positional relation between a coordinate system to which measurement information of a measurement point refers and ~~an~~ a schematic image of a surveying field, in which said image includes a staking point, and a correspondence establishing processor that establishes a correspondence between three-dimensional position information of said staking point and two-dimensional position information of a point corresponding to said staking point on said schematic image;

wherein said personal digital assistant comprises:

an image processor that superimposes a symbol for indicating the position of said staking point on said schematic image in accordance with said correspondence, said correspondence establishing processor further establishing a correspondence between said measurement information of said measurement point and two-dimensional position information of a point corresponding to said measurement point on said schematic image, said image processor indicating the position of said measurement point on said schematic image.

27. (Currently Amended) A digital camera, comprising:

an imaging device that captures a schematic image of a surveying field ~~which~~ that includes a staking point, for staking out surveying with a surveying instrument;

a position relation calculating processor that calculates a positional relation between said schematic image and said surveying instrument in accordance with two-dimensional position information of a plurality of arbitrary designated control points on said schematic image, and one of three-dimensional measurement information of said plurality of control points measured by said surveying instrument and previously obtained measurement information;

a correspondence establishing processor that establishes a correspondence of three-dimensional measurement information of a measurement point measured by said surveying instrument, and of three-dimensional position information of said staking point, to two-dimensional position information on said schematic image which corresponds to each of said measurement points and said staking point; and

an ~~image indicating device~~ image indicator that indicates positions of said measurement point and said staking point on said schematic image, in accordance with said correspondence, wherein said correspondence establishing processor further establishes a correspondence between said measurement information of said measurement point and two-dimensional position information of a point corresponding to said measurement point on said schematic image, said image indicator indicating the position of said measurement point on said schematic image.

28. (Original) A digital camera according to claim 27, further comprising a data receiving processor that receives three-dimensional measurement information of a

target, which is measured in order to carry out staking out surveying for said staking point, from said surveying instrument, and said image-indicating device indicates a position of said target on said schematic image.

29. (Original) A digital camera according to claim 28, wherein said image-indicating device indicates a distance between said position of said target and said position of said staking point.

30. (Original) A digital camera according to claim 28, wherein said image-indicating device indicates a direction in which said target should be moved for said staking out surveying, on said schematic image.

31. (Original) A digital camera according to claim 27, further comprising an input device that enables a designation of a point on a screen of said image indicating device, wherein a position of said control point is arbitrarily designated on said schematic image displayed on said screen by using said input device.

32. (Currently Amended) A surveying supporting device, comprising:

a position relation calculating processor that calculates ~~the~~ a position relation between a coordinate system to which measurement information of a measurement point refers and a schematic image of a surveying field, in which ~~includes~~ said schematic image includes a staking point ~~to be staked by using a surveying instrument, and said surveying instrument~~ ; and

a correspondence establishing processor that establishes a̲ correspondence [[of]] between three-dimensional ~~measurement~~ position information ~~of a measurement point measured by said surveying instrument, and of three-dimensional position information~~ of said staking point [[, to]] and̲ two-dimensional position information ~~on said schematic image which corresponds to each of said measurement points~~ of a point corresponding to̲ [[and]] said staking point on said schematic image [[;]]._

wherein an imager superimposes a symbol that indicates the position of said staking point ~~positions of said measurement point and said staking point are indicated~~ on said schematic image in accordance with said correspondence, said correspondence establishing processor further establishing a correspondence between said measurement information of said measurement point and said two-dimensional position information of said point corresponding to said measurement point on said schematic image, said imager indicating the position of said measurement point on said schematic image.

33. (Currently Amended) A device according to claim 32, further comprising a data receiving processor that receives three-dimensional measurement information of a target, which is measured in order to carry out staking out surveying for said staking point, from said surveying instrument, and said ~~image indicating device~~ imager indicates a position of said target on said schematic image.

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34. (Currently Amended) A device according to claim 33, wherein said ~~image indicating device~~ imager indicates a distance between said position of said target and said position of said staking point.

35. (Currently Amended) A device according to claim 33, wherein said ~~image indicating device~~ imager indicates a direction in which said target should be moved for said staking out surveying, on said schematic image.

36. (Currently Amended) A computer program ~~product~~ for supporting surveying, comprising:

~~position relation calculation means for~~ calculating a positional relation between a coordinate system to which measurement information of a measurement point refers and a schematic image of a surveying field ~~including~~ , in which the schematic image includes a staking point ~~, and a surveying instrument~~ ;

~~correspondence calculation means for~~ calculating a correspondence [[of]] between three-dimensional ~~measurement~~ position information ~~of a measurement point measured by said surveying instrument, and of three-dimensional position information~~ of said staking point [[, to]] and two-dimensional position information of a point corresponding to the staking point on said schematic image ~~which corresponds to each of said measurement points and said staking point~~ ; and

superimposing a symbol that indicates the position of the staking point on the schematic image in accordance with the correspondence,

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wherein ~~of positions corresponding to said measurement point and said staking point on said schematic image are indicated in accordance with~~ said correspondence further establishes a correspondence between the measurement information of the measurement point and the two-dimensional position information of the point corresponding to the measurement point on the schematic image, the position of the measurement point being indicated on the schematic image.

37. (Currently Amended) A surveying method ~~that comprises steps of~~ , comprising:

capturing a schematic image of a surveying field including a staking point;

calculating a relation between said schematic image and a surveying instrument;

indicating a position of said staking point on said schematic image;

measuring three-dimensional measurement information of a target ~~by~~ using said surveying instrument in order to carry out staking ~~out surveying~~ for said staking point; ~~and~~

indicating a position of said staking point on said schematic image, in accordance with said relation, for guiding said target to said staking point,

establishing a correspondence between said three-dimensional measurement information and two-dimensional position information of a point corresponding to said target on said schematic image, and

indicating the position of said target on said schematic image.

38-64. (Cancelled)